DRAFT

TECHNICAL MEMORANDUM 10
TEST PIT INSTALLATION AND SOIL SAMPLING

SUMMARY
SITE INVESTIGATION AND REMEDIATION REPORT
AIRPORT/KLONDIKE AREA
AT
PRATT & WHITNEY
EAST HARTFORD, CONNECTICUT
EPA ID No. CTD990672081

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Acronyms

AEL	Averill Environmental Laboratory, Inc.
DEP	State of Connecticut Department of Environmental Protection
DPH	State of Connecticut Department of Public Health
FID	Flame Ionization Detector
F&O	Fuss & O'Neill, Inc.
H&A	Haley & Aldrich, Inc.
LEA	Loureiro Engineering Associates, Inc.
M&E	Metcalf & Eddy, Inc.
mg/l	milligrams per liter
NTU	Nephelometric Turbidity Unit
P&W	Pratt & Whitney
PID	Photoionization Detector
PPE	Personal Protective Equipment
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
QNT	Quanterra Environmental Services, Inc.
RCSA	Regulations of Connecticut State Agencies
SOP	Standard Operating Procedure
TM	Technical Memoranda
USTM	Unit-Specific Technical Memorandum
VOC	Volatile Organic Compound

1. INTRODUCTION

1.1 Purpose and Objective

This Technical Memorandum (TM) presents the methodology and results of the test pit installation and the soil sampling methodology used in the Airport/Klondike Area (Site) of the Pratt & Whitney (P&W) facility located at 400 Main Street (Main Street facility) in the Town of East Hartford, Connecticut. Test pits were installed as part of the Site investigation activities to characterize the nature and the distribution of contaminants in the unconsolidated materials at the Site.

1.2 Background

The Airport/Klondike Area is located on the eastern portion of the P&W Main Street facility on the east side of the main plant, north of Brewer Street and south of Silver Lane. The Airport/Klondike Area consists of four study areas that include the North and South Airport Areas and the North and South Klondike Areas. Previous investigations at the Site performed from 1990 through 1993 resulted in the installation and sampling of soil borings, groundwater monitoring wells, and temporary wellpoints throughout the Airport/Klondike Area.

1.3 Scope

This TM covers the installation, sampling, and rationale for the test pits installed in the Airport/Klondike Area. The methods and techniques discussed are those used by Loureiro Engineering Associates, Inc. (LEA) during the period from approximately 1994 through 1998. These methods and techniques have also been used, to a greater or lesser extent, by other consultants and contractors working at the Site at various times. This TM does not cover specific chemical analyses of soil samples collected during the test pits installation as these data are discussed in the appropriate Unit-Specific Technical Memorandum (USTM).

1.4 General Geologic and Hydrogeologic Conditions

The geologic and hydrogeologic characteristics of the Site are discussed in detail in the main body of this report. In general, the surficial materials in which the majority of the test pits were completed, consist of medium to fine grained sands with trace levels of fine gravels and coarse sands. These sediments are generally post-glacial, fluvial deposits associated with the Connecticut River, although in many places the upper portion of these sediments have been anthropogenically disturbed during on-site construction activities. Beneath the fluvial sediments

are glaciolacustrine sediments, primarily laminated silts and clays, associated with glacial Lake Hitchcock. The basal sediment layer over most of the area is glacial till and stratified drift. Bedrock in the general East Hartford area consists of Triassic Age, interbedded arkoses and basalts. Bedrock in the area has a general slight dip eastward cut by widespread steep faults.

The regional drainage basin is the Upper Connecticut River Basin. Regional flow in the unconsolidated materials in this part of the basin is to the west, towards the Connecticut River. Local groundwater flow is also controlled to some extent by local drainage sub-basins and topography. The upper portion of the unconsolidated sediments serves as the primary aquifer in the area. Groundwater flow in the bedrock is primarily within fractures and fault planes, and to a lesser extent within the rock matrix. The local bedrock aquifer would be adequate as a residential water supply source, but groundwater yields are typically too low to be of commercial or industrial use.

1.5 Test Pit Locations and Rationale

Test pits have been installed at the Site over the course of several years as parts of a variety of environmental investigations. Test pits have been installed both as part of sitewide investigations of soil quality, during investigations of specific environmental units and areas, and as part of the remedial activities performed at the Site. In many cases, these test pits were located on the basis of historical information regarding Site operations, on the basis of field observations made during numerous Site walkovers and visits, and on information gathered during other phases of the environmental investigation of the Site particularly of the results of the focused soil boring program. Historical operations have been reported in various reports, deduced from aerial photographs, engineering drawings and plans, and reported in various P&W internal memoranda. More details on historical operations are included in the main body of this report as well as in the USTMs.

2. METHODOLOGY

This section presents the methods and techniques used to install the test pits at the Site. These methods were used by LEA. Reports from previous environmental contractors do not include references to test pit installations.

2.1 General Procedures

Test pits in the Airport/Klondike Area have been installed in various locations generally to support subsequent soil excavation activities but also to supplement the focused soil boring program. Test pits have been installed at the Site since approximately 1996 by LEA. No indication of historical test pits has thus far been identified. This TM describes the general procedures that were used during the installation of test pits at the Site. Also discussed are any variations and exceptions to the general methodology and the reasons why these variations and exceptions were required.

The test pits installed during the most recent investigation activities were in general accordance with the procedures described in LEA Standard Operating Procedures (SOP) *Standard Operating Procedure for Soil Sampling*, and the LEA SOP *Standard Operating Procedure for Geologic Logging of Unconsolidated Sedimentary Materials*.

2.2 Test Pit Excavation Methods

Test pits were excavated using commercial excavators under the direction of LEA field personnel. All heavy equipment was operated by experienced operators. For the removal activities, excavations were typically begun at a known septic tank system or dry well location by initially excavating the cover. The excavation was continued until the septic tank or dry well structure was exposed and subsequently removed.

To supplement the focused soil boring program, excavations were typically begun in a location where a broader view of the subsurface materials was desired. These areas included the former Silver Lane Pickle Company Soil Piles. the North Klondike Undeveloped Land Soil Piles and Storage Area, the South Klondike Rubble Piles, and the Firing Range.

For the removal activities, soil excavation at each test pit location continued laterally until all visually contaminated soil was excavated. For the investigation activities, soil excavation at each test pit location continued laterally until a large enough area was exposed for inspection and sample collection. Soil excavation was generally limited vertically by the depth to the

groundwater table. For most of the test pits, soil excavation was concluded at the water table, in some cases additional soil was removed in order to facilitate the removal of a structure, or when infiltration of groundwater was so slow that the true phreatic surface was not discovered until the following day. Soil samples were collected from the base and sidewalls of the excavations to confirm that the excavation was inclusive of all contaminated soil. In the event exceedances of any applicable regulatory standard were detected in a sample, additional soil was excavated in the direction of the exceedance, and the new perimeter of the test pit was re-sampled.

For removal activities, excavated soil was placed into lined, covered roll-off containers to await off-site disposal. Where possible, separate roll-off containers were used for each separate excavation to prevent mixing of the soils. The specifics of the soil removals is discussed in *TM 14, Soil Excavation Activities*. For investigation activities, excavated soil was placed adjacent to the test pit and then used to backfill the excavation.

2.3 Soil Sampling Methods

Soil samples collected from test pits were sampled in general accordance with the procedures described in the LEA SOP *Standard Operating Procedure for Soil Sampling*. Soil sampling was performed after the completion of the test pit excavation. Soil sampling procedures were similar for all test pits.

After the completion of the test pit, soil samples were collected from the excavation sidewalls and bottom, as appropriate, directly into laboratory supplied, 4 ounce, Teflon®-lidded, sample containers. The soil samples were grab samples collected approximately 3 to 6 inches below the surface. The soil samples were typically located randomly along the excavation face. When indications of potential contamination (i.e., staining, odors, discoloration, etc.) were observed, the grab sample was collected judgmentally from the area that represented potential contaminated conditions. All soil samples were examined by the attending LEA field personnel for indications of contamination, such as the presence of visible free-phase petroleum, visible staining, or the presence of odors. Soil samples were collected directly into laboratory-supplied sample containers with Teflon®-lined lids for submission to an off-site laboratory for possible analysis. After collection, soil samples were typically field headspace screened with either a photoionization detector (PID) or flame ionization detector (FID) for the presence of volatile organic compounds (VOCs).

Soil samples were collected using pre-cleaned stainless-steel spatulas. Filled sample containers were labeled using pre-printed, pre-numbered adhesive labels with the sampling date and time

hand recorded by the sampler. The filled sample containers were placed into iced sample coolers for the remainder of the sampling day.

Occasionally, samples were collected for the LEA Analytical Laboratory. A 5-gram aliquot of the soil was collected directly into a 40-milliliter vial with a Teflon® septum for analysis for target VOCs. Prior to collecting the sample, the analytical balance was tared against the weight of the vial. Soil samples were collected directly into the vials and the vials plus the soil were weighed to determine the weight of the soil sample collected. The vials were then filled to 30-milliliters volume with pre-preserved sampling water supplied by the LEA Analytical Laboratory. Filling of the vials was done by placing the vials into a wooden or plastic block, drilled to accept the vial, and sized to provide a top surface level with the 30-milliliter level of the vials. Filled sample vials were labeled using pre-printed, pre-numbered adhesive labels with the sampling date and time hand recorded by the sampler. The filled sample vials were placed into iced sample coolers for the remainder of the sampling day. The specifics of the analysis by the LEA Analytical Laboratory are discussed in *TM 7, Loureiro Engineering Associates Analytical Laboratory.*

2.4 Analytical Parameters

Analytical parameters for soil samples collected from test pits installed in the Airport/Klondike Area were selected on the basis of historical information regarding area-specific operations. Specific contaminants of concern were chosen based on the chemicals and materials known or suspected to have been used in the area, and historical information gathered during previous environmental investigations.

Specific analyses performed on soil samples, and the rationale for selecting specific samples for analysis, are discussed in the appropriate USTMs. The analytical parameters selected for all soil samples are presented in Table TM10-1. Table TM10-1 also presents information regarding which soil samples were submitted for laboratory analyses and whether any of the target analytes for the analyses selected were detected. Table TM10-1 indicates both sample information including location identification, sample number, sample date, sample interval, and sample class (i.e., SB - soil boring sample, SPB - soil boring sample to be remediated, GW - groundwater sample) along with analysis information. The analysis information is indicated by analytical class (i.e., volatile organics, semivolatile organics, etc.) with a blank for samples not analyzed for a particular analytical class, an "x" or samples analyzed but no analytes in the analytical class (or group) over the detection limit, and an "X" for samples analyzed with at least one analyte in the analytical class over the detection limit. The miscellaneous category under the analysis

information usually indicates analysis for total petroleum hydrocarbons (TPH). Sample location identifiers are discussed in Section 2.10.

2.5 Quality Assurance/Quality Control Procedures

Several Quality Assurance (QA) samples were collected to confirm the reliability and validity of the field data gathered during the Site investigation. Duplicate samples were used to provide a measurement of the sampling consistency and an estimate of variance and bias. Trip and equipment blanks were used to provide a measurement of cross-contamination sources, decontamination efficiency, and other potential errors that can be introduced from sources other than the sample.

Trip blanks were used on every sampling day that VOC samples were collected. Trip blanks were supplied by the analytical laboratory for each cooler/sampling event.

Equipment blanks submitted to off-site analytical laboratories were collected at the rate of approximately one equipment blank for every twenty soil samples submitted for analysis. Equipment blanks submitted to off-site laboratories were collected using laboratory-supplied distilled, de-ionized water and field decontaminated sampling equipment. Equipment blanks submitted to the LEA Analytical Laboratory were collected using the laboratory-supplied sampling water.

Specific information regarding QA/QC sampling and analysis is provided in *TM 15, Quality Assurance/Quality Control.*

The possession of samples, including QA/QC samples, was traceable from the time the samples were collected until they were analyzed. Chain-of-custody procedures were used to maintain and document sample possession from collection through analysis. The following documents identify samples and document possession:

Sample labels
Chain-of-custody record forms
Field notebooks/Field Sampling Records

The field sampler was responsible for the care and custody of the samples collected until they are transferred under the chain-of-custody procedures. Samples collected for analysis at the LEA Analytical Laboratory were maintained under separate chain-of-custody and in separate coolers from samples collected for submission to off-site analytical laboratories.

2.6 Test Pit Logging

After the retrieved soil was collected for laboratory analysis and field headspace screening, the attending LEA field personnel also visually described the soils using a modified Burmister Classification System. The geologic descriptions were recorded on standardized "Test Pit Log" forms in general accordance with the LEA SOP *Standard Operating Procedure for Geologic Logging of Unconsolidated Sedimentary Materials.*

The general data recorded for the subsurface materials encountered included the estimated primary grain size ranges according to the Burmister Classification Scheme, secondary grain size ranges, color, relative degree of water saturation, and visible sedimentary structures. In addition, the presence of extraneous materials and foreign objects was also recorded, as was the presence of odors or staining. Copies of available test pit logs are included in Attachment A to this TM.

2.7 Test Pit Abandonment

After the completion of soil sampling and geologic logging, test pits completed as part of the remediation activities were generally not abandoned, but were fenced and/or covered to provide personnel protection, and left open until analytical data became available. The rationale for leaving the test pits open was to facilitate additional soil removal, should it be necessary. Upon receipt and evaluation of the analytical data, additional soil was removed and the excavation backfilled with material from an off-site borrow source. After excavation, the location of each test pit was surveyed to provide horizontal location data. Test pit locations were typically surveyed within two weeks of completion.

2.8 Historical Test Pits

There is no available information regarding the installation of historical test pits in the Airport/Klondike Area.

2.9 Decontamination of Materials and Equipment

The purpose of consistent decontamination procedures was to prevent the potential spread of contamination between test pits and samples and from the immediate work area around the test pit. All equipment and materials placed into a test pit, or associated with the collection and sampling of soil from a test pit, were decontaminated prior to initiating the excavation and between individual samples, as appropriate. Decontamination procedures are presented in the LEA SOP *Standard Operating Procedure for Hollow Stem Auger Soil Borings.* Backhoes were

decontaminated by steam-cleaning prior to initiating any excavations at the Site. Steam-cleaning took place at a decontamination pad. The decontamination pad was typically a portable plastic or metal basin of sufficient volume to hold the backhoe bucket and any associated tooling.

Sampling equipment, such as stainless steel spatulas, were decontaminated between uses in the field at the excavation site. Manual decontamination took place at the excavation site using a portable decontamination system, consisting of small, portable trough to contain over-spray and potentially spilt decontamination fluids, and decontamination solutions in individual 5-gallon buckets, or spray containers, as appropriate. The sampling equipment was decontaminated using the following procedure:

- Brush off gross soil particles.
- Wash and scrub equipment with phosphate-free detergent.
- Rinse equipment with deionized water.
- Rinse equipment with dilute nitric acid solution.
- Rinse equipment in deionized water.
- Rinse equipment with dilute methanol/water solution.
- Rinse equipment in deionized water.
- Allow equipment to air dry.

The decontamination water was maintained in 5-gallon buckets during use, and transferred to 55-gallon drums for disposal by P&W. LEA field personnel were responsible for preventing cross-contamination between soil samples collected for laboratory analysis.

2.10 Test Pit Location Identifiers

Test pits, as well as monitoring wells, piezometers, stream gauges, surface water and sediment sampling locations, and soil borings, have been provided with location identifiers using a systematic method to prevent duplication of location identifiers. The system of location identifiers provides a relatively easy means of finding the referenced locations on site maps. All parts of the P&W East Hartford facilities, including the Andrew Willgoos Gas Turbine Laboratory, the Colt Street facility, and the Main Street facility, have been divided into twenty-nine study areas. Each of the study areas has been assigned two-letter identifiers based upon the common name for the area. These two-letter designations are presented in Table TM10-2.

In addition, each type of sampling location has been assigned a two-letter designation to identify the major sample type for a given sampling location. The two-letter designations for the various types of sampling locations are also presented in Table TM10-2. Because of the large areas

involved, the study areas that encompass the Airport/Klondike Area include the North and South Airport Areas and the North and South Klondike Areas. All monitoring and sampling locations have been given a location identifier based on their location in the Airport/Klondike Area, the type of sampling or monitoring location, and finally a sequential numeric identifier based upon the specific type of location. All test pit locations are presented on Drawing TM10-1, which covers the entire Airport/Klondike Area.

Because multiple samples were collected from a given test pit, an additional location identifier code was added to indicate which portion of the test pit the specific sample was collected from. This additional code took the form of a single letter appended to the end of the test pit identifier to indicate whether the sample was collected from the base or a wall, and, if from a wall, which wall. The specific codes associated with the test pit samples were: "N" for northern sidewall samples; "E" for eastern sidewall samples; "S" for southern sidewall samples; "W" for western sidewall samples; and, "B" for bottom samples. When additional soil removal was warranted, the subsequent soil samples were typically identified with additional suffixes such as "S1" for the first additional sample along a sidewall or excavation base, "S2" for the second, and so on.

2.11 Waste Management

All spent decontamination fluids generated during test pit excavation activities for the investigation were placed in 55-gallon, closed-top drums supplied by P&W for subsequent off-site disposal by P&W. The drums were labeled, the test pits contributing to each were listed, and the information tracked to aid in waste characterization and disposal.

All excavated soil from removal activities was placed into separate roll-off containers supplied by P&W for subsequent off-site disposal by P&W. The roll-off containers were labeled, the test pits contributing to each were listed, and the information tracked to aid in waste characterization and disposal. If necessary, roll-off containers were sampled, and the analytical data used to characterize the soil for disposal. Soil excavation and disposal are discussed in TM 14 *Soil Removal Activities*.

2.12 Health and Safety

LEA field personnel conducted field activities in accordance with the LEA Site Health and Safety Plan that was prepared for all of the investigation activities performed at the Site. In general, soil boring advancement was conducted in modified Level D personal protective equipment (PPE) consisting of safety glasses, surgical or nitrile gloves, steel-toed shoes, and hard hats. Excavation contractors employed as subcontractors operated in accordance with their

specific health and safety plans.

3. RESULTS

A total of thirty-two test pits have been excavated in the Airport/Klondike Area since August 1996. The breakdown of the test pits excavated, the associated environmental unit, the date of excavation, and the approximate volume of soil excavated is presented in Table TM10-3. In sum, three test pits were excavated in the North Airport Area, nineteen test pits were excavated in the North Klondike Area, and ten test pits were excavated in the South Klondike Area. No test pits were excavated in the South Airport Area. Discussions of the specific test pits and the rationale for their installation are discussed in the relevant USTMs.

Most of the test pits excavated in the Airport/Klondike Area were associated with the removal activities, particularly the removal of septic systems or dry wells in the vicinity of former test stands or other structures in the area. Some of the test pits were associated with the investigative activities. To supplement the focused soil boring program, excavations were typically begun in a location where a broader view of the subsurface materials was desired. These areas included the former Silver Lane Pickle Company Soil Piles. the North Klondike Undeveloped Land Soil Piles and Storage Area, the South Klondike Rubble Piles, and the Firing Range.

Soil samples were collected from the base and the sidewalls of the test pits and submitted for laboratory analyses to determine the extent of contamination and to determine whether the limits of excavation had been reached. Soil excavated from the test pits associated with the removal activities was placed in roll-off containers and disposed of off-site. Soil excavated from test pits associated with the investigative activities was used to backfill the excavation. The test pit locations were surveyed, and the test pits themselves have been backfilled with clean fill and abandoned.

TABLES

Table TM1c *DRAFT*

SUMMARY OF TEST PIT SOIL SAMPLING AND ANALYSES

Airport/Klondike Area, Pratt & Whitney, East Hartford, Connecticut

Sample Information						Analysis Information								
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extractions	Miscellaneous
NA-TP-01B	1020910	11/01/96	6.0		SS	x								
NA-TP-01E	1020907	11/01/96	3.0		SS	x								
NA-TP-01N	1020906	11/01/96	2.2		SS	x								
NA-TP-01S	1020908	11/01/96	2.5		SS	x								
NA-TP-01W	1020909	11/01/96	3.0		SS	x	x					X		x
NA-TP-02B	1021018	11/01/96	6		SS	x	x					X		X
NA-TP-02E	1020912	11/01/96	2.2		SS	x								
NA-TP-02N	1020911	11/01/96	2.3		SS	x								
NA-TP-02S	1020913	11/01/96	3.0		SS	x								
NA-TP-02W	1020914	11/01/96	2.2		SS	x								
NA-TP-03B	1021023	11/01/96	6.2		SS	x	x					X		X
NA-TP-03E	1021020	11/01/96	4		SS	x								
NA-TP-03N	1021019	11/01/96	4		SS	x								
NA-TP-03N	1021024	11/01/96	4		SS	x								
NA-TP-03S	1021021	11/01/96	4		SS	x								
NA-TP-03W	1021022	11/01/96	3.3		SS	x								
NK-TP-01B	1017462	08/19/96	9		SS	x	x					X		
NK-TP-01E	1017465	08/19/96	5.1		SS	x	x					X		
NK-TP-01N	1017466	08/19/96	5.2		SS	x								
NK-TP-01S	1017463	08/19/96	5.1		SS	x								
NK-TP-01W	1017464	08/19/96	5.6		SS	x								
NK-TP-02B	1017467	08/19/96	9.2		SS	x	x					X		
NK-TP-02E	1017471	08/19/96	5.5		SS	x								
NK-TP-02N	1017469	08/19/96	5.2		SS	x	X					X		
NK-TP-02S	1017468	08/19/96	5.3		SS	x								
NK-TP-02W	1017470	08/19/96	5.3		SS	x								
NK-TP-03B	1017472	08/19/96	7.2		SS	x								
NK-TP-03E	1017477	08/19/96	4.0		SS	x	x					X		
NK-TP-03NE	1017474	08/19/96	4.4		SS	x								
NK-TP-03NW	1017473	08/19/96	4.3		SS	x								
NK-TP-03S	1017475	08/19/96	4.4		SS	x	x					X		
NK-TP-03W	1017476	08/19/96	5.1		SS	x								
NK-TP-04B	1020895	11/01/96	6		SS	x	x	x			x	X		X
NK-TP-04E	1020894	11/01/96	3		SS	x								
NK-TP-04S	1020893	11/01/96	3		SS	x								
NK-TP-04W	1020892	11/01/96	4		SS	x								
NK-TP-05B	1020900	11/01/96	6		SS	x	x	x			x	X		x
NK-TP-05E	1020897	11/01/96	3		SS	x	x					X		X
NK-TP-05N	1020896	11/01/96	2		SS	x								
NK-TP-05S	1020898	11/01/96	2.5		SS	x								
NK-TP-05W	1020899	11/01/96	2.6		SS	x								

Table TM1[illegible] *DRAFT*

SUMMARY OF TEST PIT SOIL SAMPLING AND ANALYSES

Airport/Klondike Area, Pratt & Whitney, East Hartford, Connecticut

Sample Information						Analysis Information								
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extractions	Miscellaneous
NK-TP-06B	1020905	11/01/96	6		SS	x	x					X		x
NK-TP-06E	1020902	11/01/96	2		SS	x								
NK-TP-06N	1020901	11/01/96	3		SS	x								
NK-TP-06S	1020903	11/01/96	2		SS	x								
NK-TP-06W	1020904	11/01/96	2.2		SS	x								
NK-TP-08B	1635125	06/09/97			SS		x	x				X		X
NK-TP-08E	1635123	06/09/97			SS		x	x				X		x
NK-TP-08N	1635121	06/09/97			SS		x	x				X		x
NK-TP-08S	1635122	06/09/97			SS		x	x				X		x
NK-TP-08W	1635124	06/09/97			SS		x	x				X		x
NK-TP-09B	1635131	06/09/97			SS		x	x			x	X		x
NK-TP-09E	1635128	06/09/97			SS		x	x			x	X		x
NK-TP-09N	1635126	06/09/97			SS		x	x			x	X		x
NK-TP-09S	1635127	06/09/97			SS		x	x			x	X		x
NK-TP-09W	1635129	06/09/97			SS		x	x			X	X		x
NK-TP-09W	1635130	06/09/97			SS		x	x			x	X		x
NK-TP-10E1	1635134	06/09/97			SS		x	x				X		x
NK-TP-10E2	1635135	06/09/97			SS		x	x				X		x
NK-TP-10N	1635132	06/09/97			SS		x	x				X		x
NK-TP-10S	1635133	06/09/97			SS		x	x				X		x
NK-TP-10W1	1635136	06/09/97			SS		x	x				X		x
NK-TP-10W2	1635137	06/09/97			SS		x	x				X		x
NK-TP-11E	1635146	06/09/97			SS		x					X		x
NK-TP-11N	1635144	06/09/97			SS		x					X		x
NK-TP-11S	1635145	06/09/97			SS		x					X		x
NK-TP-11W	1635147	06/09/97			SS		x					X		x
NK-TP-12E	1635150	06/09/97			SS		x					X		X
NK-TP-12E	1635151	06/09/97			SS		x					X		X
K-TP-12EN2	1641783	09/25/97	2.5		SS							x	x	
K-TP-12EN2	1641782	09/25/97	2.5		SS							x	x	
NK-TP-12ES2	1641785	09/25/97			SS							x	x	
K-TP-12ES2	1641784	09/25/97	2.5		SS							X	X	
NK-TP-12N	1635148	06/09/97			SS		x					X		X
NK-TP-12S	1635149	06/09/97			SS		x					X		x
NK-TP-12W	1635152	06/09/97			SS		x					X		x
NK-TP-13E	1635155	06/09/97			SS		x					X		x
NK-TP-13N	1635153	06/09/97			SS		x					X		x
NK-TP-13S	1635154	06/09/97			SS		x					X		x
NK-TP-13W	1635156	06/09/97			SS		x					X		x
NK-TP-13W	1635157	06/09/97			SS		x					X		x
NK-TP-14B	1635143	06/09/97			SS		x					X		x

Table TM1[illegible]

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Sample Information						Analysis Information								
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extractions	Miscellaneous
NK-TP-14E	1635141	06/09/97			SS		x					X		x
NK-TP-14N	1635139	06/09/97			SS		x					X		x
NK-TP-14S	1635140	06/09/97			SS		x					X		x
NK-TP-14W	1635142	06/09/97			SS		x					X		x
NK-TP-16E	1635177	06/10/97			SS		x					X		x
NK-TP-16N	1635175	06/10/97			SS		x					X		x
NK-TP-16S	1635176	06/10/97			SS		x					X		x
NK-TP-16W	1635178	06/10/97			SS		x					X		x
NK-TP-17E	1635165	06/10/97			SS		x					X		x
NK-TP-17N	1635163	06/10/97			SS		x					X		X
NK-TP-17S	1635164	06/10/97			SS		x					X		X
NK-TP-17W	1635166	06/10/97			SS		X					X		X
NK-TP-18B	1635170	06/10/97			SS		x					X		X
NK-TP-18N	1635167	06/10/97			SS		x					X		x
NK-TP-18S1	1635168	06/10/97			SS		x					X		x
NK-TP-18S2	1635169	06/10/97			SS		x					X		x
NK-TP-19E	1635112	06/09/97			SS		x	x				X		x
NK-TP-19N	1635110	06/09/97	2.80		SS		x	x				X		x
NK-TP-19W	1635113	06/09/97			SS		x	x				X		x
SK-TP-01E	1021173	11/05/96	9		SS							X		
SK-TP-01S	1021172	11/05/96	3		SS							X		
SK-TP-02E	1021178	11/05/96	15		SS							X		
SK-TP-02W	1021176	11/05/96	3		SS							X		
SK-TP-03	1021150	11/05/96	3		SS	x	x	x				X		x
SK-TP-04	1021151	11/05/96	2		SS	x	x					X		X
SK-TP-05	1021152	11/05/96	2		SS	x	x					X		X
SK-TP-07E	1635181	06/10/97			SS		x					X		x
SK-TP-07N	1635179	06/10/97			SS		x					X		x
SK-TP-07S	1635180	06/10/97			SS		x					X		x
SK-TP-07W	1635182	06/10/97			SS		x					X		x
SK-TP-07W	1635183	06/10/97			SS		x					X		x
SK-TP-08E	1635186	06/10/97			SS		x					X		x
SK-TP-08N	1635184	06/10/97			SS		x					X		x
SK-TP-08S	1635185	06/10/97			SS		x					X		x
SK-TP-08W	1635187	06/10/97			SS		x					X		x
SK-TP-09E	1635197	06/10/97			SS		x				x	X		X
SK-TP-09N1	1635193	06/10/97			SS		x				x	X		x
SK-TP-09N2	1635194	06/10/97			SS		x				x	X		x
SK-TP-09S1	1635195	06/10/97			SS		x				x	X		x
SK-TP-09S2	1635196	06/10/97			SS		X				x	X		X
SK-TP-09W	1635198	06/10/97			SS		x				x	X		x

Table TM1

DRAFT

SUMMARY OF TEST PIT SOIL SAMPLING AND ANALYSES

Airport/Klondike Area, Pratt & Whitney, East Hartford, Connecticut

Sample Information						Analysis Information								
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extractions	Miscellaneous
SK-TP-10E	1635203	06/10/97			SS		x				x	X		x
SK-TP-10N1	1635199	06/10/97			SS		x				x	X		x
SK-TP-10N2	1635200	06/10/97			SS		x				x	X		x
SK-TP-10S1	1635201	06/10/97			SS		x				x	X		x
SK-TP-10S2	1635202	06/10/97			SS		x				x	X		x
SK-TP-10W	1635204	06/10/97			SS		x				x	X		x
SK-TP-10W	1635205	06/10/97			SS		x				x	X		x

Notes: tection limit; x - Analysed, no analytes in group over the detection limit

rinted on 10/05/98

Table TM10-2 Area and Sampling Type Identifiers Airport/Klondike Areas, Pratt & Whitney, East Hartford, Connecticut			
Area Designation	**Area**	**Sampling Type Identifier**	**Explanation**
AB	Within A Building	MW	Monitoring Well
BB	Within B Building	PZ	Piezometer
CB	Within C Building	SW	Surface Water
DB	Within D Building	SD	Sediment
EB	Within E Building	CC	Concrete Chip
FB	Within F Building	SS	Surface Soil
GB	Within G Building	SB	Soil Boring
HB	Within H Building	TP	Test Pit
JB	Within J Building		
KB	Within K Building		
LB	Within L Building		
MB	Within M Building		
CS	Colt Street Facility		
EA	Engineering Area		
ET	Experimental Test Airport Laboratory		
LM	Area Outside Buildings L and M		
NA	North Airport Area		
NT	North Test Area		
NW	North Willgoos Area		
PH	Powerhouse Area		
SA	South Airport Area		
SK	South Klondike Area		
ST	South Test Area		
SW	South Willgoos Area		
WT	Waste Treatment Area		
XT	Experimental Test Area		

Table TM10-3
Test Pit Locations and Excavated Soil Volumes
Airport/Klondike Areas, Pratt & Whitney, East Hartford, Connecticut

Area	Test Pits	Date Excavated	Approximate Excavated Soil Volume (Cubic Yards)
North Airport Area			
Silver Lane Pickle Company Soil Piles	NA-TP-01	11/01/96	Not Recorded
	NA-TP-02	11/01/96	Not Recorded
	NA-TP-03	11/01/96	Not Recorded
North Klondike Area			
Undeveloped Land Soil Piles	NK-TP-01	8/19/96	52
Undeveloped Land Storage Area	NK-TP-02	8/19/96	67
	NK-TP-04	11/01/96	Not Recorded
	NK-TP-05	11/01/96	Not Recorded
	NK-TP-06	11/01/96	Not Recorded
Explosive Storage Area Fill Area	NK-TP-03	8/19/96	27
X-401 Dry Wells	NK-TP-07	4/11/97	49
	NK-TP-08	4/11/97	58
	NK-TP-09	4/11/97	1
	NK-TP-10	4/11/97	51
X-410 Maintenance and Storage Building Septic System	NK-TP-11	4/15/97	26
X-415 Septic System	NK-TP-12	4/15/97	27
X-415 Dry Well	NK-TP-13	4/15/97	7
X-401 Locker Room Septic System	NK-TP-14	4/11/97	63
X-430 Stainless Steel Tank	NK-TP-15	4/15/97	29
X-314 Septic System	NK-TP-16	4/15/97	44
X-415 AST	NK-TP-17	4/28/97	31
X-415 AST Pipe	NK-TP-18	4/28/97	18
Fire Training Area C	NK-TP-19	4/22/97	9
South Airport Area			
None			
South Klondike Area			
Firing Range	SK-TP-01	11/05/96	Not Recorded
	SK-TP-02	11/05/96	Not Recorded
X-307 Septic System	SK-TP-03	11/05/96	Not Recorded
	SK-TP-04	11/05/96	Not Recorded
	SK-TP-05	11/05/96	Not Recorded

Table TM10-3
Test Pit Locations and Excavated Soil Volumes
Airport/Klondike Areas, Pratt & Whitney, East Hartford, Connecticut

Area	Test Pits	Date Excavated	Approximate Excavated Soil Volume (Cubic Yards)
X-307 Septic System	SK-TP-07	4/15/97	89
Cryogenics Dry Well	SK-TP-06	4/18/97	13
and	SK-TP-09	4/18/97	68
Septic System	SK-TP-10	4/18/97	77
Linde Area UST	SK-TP-08	4/15/97	42

DRAFT

ATTACHMENT A

Test Pit Logs

TEST PIT LOG

Project Name:	Silver Lane Pickel Co.	Project Location:	East Hartford, CT	Test Pit No:	NA-TP-01
Project No:	68VC620			Contractor:	LEA
Test Pit Dimensions:				Equipment Used:	Case 580E
Length:	NM			Inspector:	F. Postma
Width:	NM			Weather:	
Depth:	NM			Date:	11/01/96
Groundwater Observations:					
At:	NM	After:	Hours		
At:		After:	Hours		

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Brown, fine SAND, some medium Sand, loose, moist, sapric Organic Matter
	1020906 1020907 1020908 1020910		0.0 0.1 0.1 0.4	As Above
4				As Above
	1020911		0.2	As Above
				Bottom of Test Pit at 6.2'
8				
12				
16				
20				
24				

Comments:
Grab Sample: 1020906 taken from North side at 2.2'; 1020907 taken from East side at 3.0'; 1020908 taken from South side at 2.5'; 1020909 taken from West side at 3.0'; 1021010 taken from Bottom at 6'.

Test Pit No: NA-TP-01

LEA
LOUREIRO ENGINEERING ASSOCIATES, PC
100 Northwest Drive, Plainville, Connecticut, 06062, Phone (860)747-6181 Fax (860)747-6181

TEST PIT LOG

Project Name: Silver Lane Pickel Co.
Project Location: East Hartford, CT
Test Pit No: NA-TP-02

Project No: 68VC620

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Groundwater Observations:
At: NM After: Hours
At: After: Hours

Contractor: LEA
Equipment Used: Case 580E
Inspector: F. Postma
Weather:
Date: 11/01/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Brown, fine SAND, little medium Sand, loose, moist, massive structure, metal
	1020911 1020912 1020913 1020914		0.0 0.2 0.3 0.2	As Above
4				As Above
	1021018		0.4	Dark brown, medium SAND, some fine Gravel, little coarse Sand, dense, moist
				Bottom of Test Pit at 6.0'
8				
12				
16				
20				
24				

Comments:
Grab Sample: 1020911 taken from North side at 2.3'; 1020912 taken from East side at 2.2'; 1020913 taken from South side at 3.0'; 1020914 taken from West side at 2.2'; 1021018 taken from Bottom at 6'.

Test Pit No: NA-TP-02

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TEST PIT LOG

Project Name: Silver Lane Pickel Co.
Project Location: East Hartford, CT
Test Pit No: NA-TP-03

Project No: 68VC620

Contractor: LEA

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Equipment Used: Case 580E

Inspector: F. Postma

Weather:

Groundwater Observations:
At: NM After: Hours
At: After: Hours

Date: 11/01/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Brown to reddish brown, fine SAND, some medium Sand, trace coarse Sand, loose, moist, brick, tile
				As Above
	1021019		0.1	As Above
	1021020		0.2	
4	1021021		0.2	
	1021022		0.2	Dark brown to black, fine SAND, little medium Sand, little Silt, dense, moist, brick, concrete, metal (sludge-like)
	1021024			
	1021023		3.3	As Above
				Bottom of Test Pit at 6.2'
8				
12				
16				
20				
24				

Comments:
Grab Sample: 1021019 & 1021024 taken from North side at 4.0'; 1021020 taken from East side at 4.0'; 1021021 taken from South side at 4.0'; 1021022 taken from West side at 3.3'; 1021023 taken from Bottom at 6.2'.

Test Pit No: NA-TP-03

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TEST PIT LOG

Project Name	Project Location	Test Pit No:
NK Undeveloped Land Soil Piles	Pratt & Whitney, East Hartford, CT	NK-TP-01

Project No: 68TR673

Test Pit Dimensions:

Length: 26
Width: 6
Depth: 9

Groundwater Observations:

At: NM After: Hours

Contractor: D. Legeyt

Equipment Used: Case 580 SuperE

Inspector: F. Postma

Weather: Sunny, 85F

Date: 8/19/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Pale yellow, fine SAND, trace(-) Silt, loose, moist to dry, massive structure
2				
4				
	1017463 1017464 1017465 1017466			Brownish yellow to dark brown, fine SAND, little medium Sand, trace Silt, moist, moderately dense, organic matter (sapric), stratified, grey, Silt inclusion on north side at 4', roots, mottles at 8.2'
6				As Above
8				
	1017422		0.3	As Above
10				Bottom of Test Pit at 9'
12				

Comments:
Grab Sample: 1017463 taken from south sideat 5.1'; 1017464 taken from west side at 5.
6'; 1017465 taken from east side at 5.1'; 1017466 taken from north side at ;
1017462 taken from bottom at 9'.

Printed On: 6/17/1998

Test Pit No: NK-TP-01

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TEST PIT LOG

Project Name: NK Undeveloped Land Soil Piles
Project Location: Pratt & Whitney, East Hartford, CT
Test Pit No: NK-TP-02

Project No: 68TR673
Contractor: D. Legeyt
Test Pit Dimensions:
Length: 31.1
Width: 6.3
Depth: 9.2
Equipment Used: Case 580 SuperE
Inspector: F. Postma
Weather: Sunny, 85F
Groundwater Observations:
Date: 8/19/96
At: NM **After:** **Hours**

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Yellowish red, fine SAND, trace medium Sand, trace(-) Silt, loose, moist to dry, roots, metal piping
2				
4				Strong brown, fine SAND, little Silt, moderately dense, moist, organic matter (sapric), strong petroleum odor, stratified (rudely), wood blocks, glass, roots, plastic
	1017468		32	As Above
	1017469		720	
	1017470		120	
	1017471		60	As Above
6				
8				
	1017467		18	Brown to dark brown, medium SAND, some coarse Gravel, dense, moist, angular
				Bottom of Test Pit at 9.2'
10				
12				

Comments:
Grab Sample: 1017468 taken from south side at 5.3'; 1027469 taken from north side at 5.2'; 1017470 taken from west side at 5.3'; 1017471 taken from east side at 5.5'; 1017467 taken from bottom at 9.2'.

Printed On: 6/17/1998

Test Pit No: NK-TP-02

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TEST PIT LOG

Project Name	Project Location	Test Pit No:
Explosives Storage Area	Pratt & Whitney, East Hartford, CT	NK-TP-03

Project No: 68TR673

Test Pit Dimensions:

Length: 26'
Width: 4'
Depth: 7.1'

Groundwater Observations:

At: NM **After:** **Hours**

Contractor: D. LeGeyt
Equipment Used: Case 580 SuperE
Inspector: F. Postma
Weather: Sunny, 85F
Date: 08/19/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0	1017473 1017474 1017475 1017476 1017477		220 220 320 76 220	Yellowish brown, fine SAND, little Silt, trace(+) medium Sand, moderately dense, moist, roots, cinder blocks
2	1017473 1017474 1017475 1017476 1017477		220 320 76 220	
4	1017472			Light grey, medium SAND, some fine Sand, loose, moist to very moist, mottles, water at 6', sapric and fibric organic matter
	1017472		88	Light grey, medium SAND, some fine Sand, loose, moist to very moist, mottles, water at 6', sapric & fibric organic matter
6				
8				Bottom of Boring at 7'
10				
12				

Comments:
1017473 Taken from North side at 4.3'. 1017474 Taken from North side at 4.4'.
1017475 Taken from South side at 4.4'. 1017476 Taken from West side at 5.1'.
1017477 Taken from East side at 4.0'. 1017472 Taken from Bottom at 7.2'
1017476 Taken from West side at 5.1'

Printed On: 6/17/1998

Test Pit No: NK-TP-03

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TEST PIT LOG

Project Name: NK Soil Piles Additional Investigation
Project Location: East Hartford, CT
Test Pit No: NK-TP-04

Project No: 68VC620

Contractor: LEA

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Equipment Used: Case 580E

Inspector: L. Bianchi

Weather:

Groundwater Observations:
At: NM After: Hours
At: After: Hours

Date: 11/01/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Reddish brown, fine SAND, some medium Sand, loose, moist
				Strong brown, fine SAND, little medium Sand trace Silt, loose, moist, strong petroleum odor
	1020891		6.0	As Above
	1020893		3.8	
	1020894		2.2	
4	1020892		2.4	As Above
				As Above
	1020895		30.0	Grey, medium SAND and fine SAND, loose, very moist, strong petroleum odor (free product?)
				Bottom of Test Pit at 6.0'
8				
12				
16				
20				
24				

Comments:
Grab Sample: 1020891 taken from North side at 3.0'; 1020892 taken from West side at 4.0'; 1020893 taken from South side at 3.0'; 1020894 taken from East side at 3.0'; 1020895 taken from bottom at 6.0'.

Test Pit No: NK-TP-04

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TEST PIT LOG

Project Name: NK Soil Piles Additional Investigation
Project Location: East Hartford, CT
Test Pit No: NK-TP-05

Project No: 68VC620

Contractor: LEA

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Equipment Used: Case 580E

Inspector: L. Bianchi

Weather:

Groundwater Observations:
At: NM After: Hours
At: After: Hours

Date: 11/01/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Yellowish brown, fine SAND, some medium Sand, loose, moist, rebar, tile
	1020896 1020897 1020898 1020899		0.2 42 0.2 0.4	Dark brown, fine SAND, little medium Sand, trace(+) Silt, moist, loose, sapric and fibric Organic Matter, petroleum odor, rebar
4				As above
	1020900		475	As above
				Bottom of Test Pit at 6.2'
8				
12				
16				
20				
24				

Comments:
Grab Sample: 1020896 taken from North side at 2.0'; 1020897 taken from East side at 3.0'; 1020898 taken from South side at 2.5'; 1020899 taken from West side at 2.6'; 1020900 taken from Bottom at 6.0'.

Test Pit No: NK-TP-05

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TEST PIT LOG

Project Name: NK Soil Piles Additional Investigation
Project Location: East Hartford, CT
Test Pit No: NK-TP-06

Project No: 68VC620

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Groundwater Observations:
At: NM After: Hours
At: After: Hours

Contractor: LEA
Equipment Used: Case 580E
Inspector: L. Bianchi
Weather:
Date: 11/01/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Brownish yellow, fine SAND, some medium Sand, loose, slightly moist, asphalt, metal
	1020901		0.1	As Above
	1020902		0.3	
	1020903		0.3	
	1020904		0.3	As Above
4			0.1	
	1020905		0.4	As Above
				Bottom of Test Pit at 6'
8				
12				
16				
20				
24				

Comments:
Grab Sample: 1020901 taken from North side at 3.0'; 1020902 taken from East side at 2.0'; 1020903 taken from South side at 2.0'; 1020904 taken from West side at 2.2'; 1020905 taken from Bottom at 6.0'.

Test Pit No: NK-TP-06

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100 Northwest Drive, Plainville, Connecticut, 06062, Phone (860)747-6181 Fax (860)747-6181

TEST PIT LOG

Project Name: Firing Range Area
Project Location: East Hartford, CT
Test Pit No: SK-TP-01

Project No: 68VC610

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Groundwater Observations:
At: NM After: Hours
At: After: Hours

Contractor: LEA
Equipment Used: Backhoe
Inspector: L. Bianchi
Weather:
Date: 11/5/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				6": Dark brown, fine SAND and SILT, moist, loose, root fragments; 18": Yellowish brown, fine SAND, some Silt, trace medium Sand, moist, loose, root fragments, mottling
	1021171 1021174			
	1021170 1021172			As Above
				As Above
4				As Above
				Dark brown, fine SAND, with Silt, trace medium Sand, wet, slightly dense, mottling
8	1021173			As above
				Bottom of boring at 9.0' *
12				
16				
20				
24				

Comments:
* Olive grey, CLAY, trace Silt, wet, stiff, at ≈ 9.0'. Test pit backfilled upon completion. Grab Sample: 1021170 taken from north side at 3.0'; 1021171 taken from west side at 1.0'; 1021172 taken from south side at 3.0'; 1021173 taken from east side at 9.0'; 1021174 taken from bottom at 2.0'.

Test Pit No: SK-TP-01

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TEST PIT LOG

Project Name: Firing Range Area	Project Location: East Hartford, CT	Test Pit No: SK-TP-02

Project No: 68VC610

Test Pit Dimensions:
- **Length:** NM
- **Width:** NM
- **Depth:** NM

Groundwater Observations:
- **At:** NM **After:** **Hours**
- **At:** **After:** **Hours**

Contractor: LEA

Equipment Used: Backhoe

Inspector: L. Bianchi

Weather:

Date: 11/5/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				6": Dark brown, fine SAND and SILT, moist, loose, root fragments; 18": Yellowish brown, fine SAND, with Silt, trace medium Sand, moist, loose, root fragments, mottling
				As Above
	1021176 1021179			As Above
4				As Above
				Dark brown black, fine SAND and SILT, some medium Sand, trace coarse Sand, wet, loose, mottling
8	1021175 1021177			As Above
				As Above
12				12": As above; 12": Olive grey, varved CLAY, trace Silt, wet, stiff
	1021178			As above
16				Bottom of Test Pit at 15'
20				
24				

Comments:
Test pit backfilled upon completion. Grab Sample: 1021175 taken from north side at 9.0'; 1021176 taken from west side at 3.0'; 1021177 taken from south side at 9.0'; 1021178 taken from east side at 15.0'; 1021179 taken from bottom at 4.0'.

Test Pit No: SK-TP-02

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100 Northwest Drive, Plainville, Connecticut, 06062, Phone (860)747-6181 Fax (860)747-6181

TEST PIT LOG

Project Name: X-307 Area
Project Location: P&W, East Hartford, CT
Test Pit No: SK-TP-03

Project No: 68VC610

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Groundwater Observations:
At: NM After: Hours
At: After: Hours

Contractor: LEA
Equipment Used: Backhoe
Inspector: L. Bianchi
Weather:
Date: 11/05/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0			0.0	Dark brown, fine SAND and SILT, some medium Sand, little coarse sand, processed Stone, moist, loose
	1021150			As Above
				Bottom of Test Pit at 3'
4				
8				
12				
16				
20				
24				

Comments:
Grab Sample: 1021150 taken at 3.0.

Test Pit No: SK-TP-03

LEA
LOUREIRO ENGINEERING ASSOCIATES, PC
100 Northwest Drive, Plainville, Connecticut, 06062, Phone (860)747-6181 Fax (860)747-6181

TEST PIT LOG

Project Name: X-307 Area	Project Location: P&W, East Hartford, CT	Test Pit No: SK-TP-04

Project No: 68VC610

Test Pit Dimensions:
Length: NM
Width: NM
Depth: NM

Groundwater Observations:
At: NM **After:** **Hours**
At: **After:** **Hours**

Contractor: LEA
Equipment Used: Backhoe
Inspector: L. Bianchi
Weather:
Date: 11/05/96

Depth (Feet)	Sample Number	Strata Change	PID/FID (ppm)	Description of Materials
0				Strong brown, fine SAND, some Silt, little medium Sand, moist, loose
	1021151		0.0	As Above
				Bottom of Test Pit at 2'

4
8
12
16
20
24

Comments:
Grab Sample: 1021151 taken at 2'.

Test Pit No: SK-TP-04

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US EPA New England
RCRA Document Management System
Image Target Sheet

RDMS Document ID # 2240

Facility Name: PRATT & WHITNEY - MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-5

Purpose of Target Sheet:

[X] Oversized (in Site File) [ ] Oversized (in Map Drawer)

[ ] Page(s) Missing (Please Specify Below)

[ ] Privileged [ ] Other (Provide Purpose Below)

Description of Oversized Material, if applicable:

DRAWING TM10-1: TEST PIT LOCATIONS

[X] Map [ ] Photograph [ ] Other (Specify Below)

* Please Contact the EPA New England RCRA Records Center to View This Document *